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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,507

01/30/2006

Emile Johannes Karel Verstegen

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BRIARCLIFF MANOR, NY 10510

EXAMINER

HEYI, HENOK G

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2627

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/566,507	<b>Applicant(s)</b> VERSTEGEN ET AL.	
	<b>Examiner</b> HENOK G. HEYI	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/30/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. The term "substantially" in claims 5, 6 and 10-15 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore, claims 5, 6 and 10-15 are rejected.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Sullivan et al. 5,510,163 (Sullivan hereinafter).

Regarding claim 1, Sullivan teaches an optical record carrier (Fig. 1) comprising at least one content information layer (a medium for storing data) and at least one user information layer (and having a visible logo thereon) arranged to be scanned through the content information layer by first radiation; the content information layer comprising at least one zone representing content information in a surrounding medium, the content layer being transparent for said first radiation and the zone and surrounding medium providing an

optical, visual contrast for a different, second radiation (and, a logo coating for producing the visible logo carried by the read-side of the substrate, the coating having a sufficiently high transmittance at a read or write wavelength such that light at the read or write wavelength passing through the logo coating toward the other side of the substrate and reflected back through the logo is substantially transmitted and unchanged by the logo coating so that the data can be detected, wherein the logo coating and the reflective coating are visibly contrasting, col 2 lines 44-56).

Regarding claim 2, Sullivan teaches an optical record carrier as claimed in claim 1, wherein the at least one zone has a first transmission (17a) for said first radiation and a second, lower transmission for the second radiation (18a, see Fig. 1).

Regarding claim 3, Sullivan teaches an optical record carrier as claimed in claim 1, wherein the first radiation has a first predetermined wavelength and the second radiation has a different, second wavelength (transmission and absorption properties as that of the recording coating alone at the reading or writing wavelength(s) such that a light beam at the reading or writing wavelength(s) reflected back from the said logo coating is substantially unchanged by the said logo coating compared to a light beam reflected back directly from the said recording coating, lines 27-44).

Regarding claim 4, Sullivan teaches an optical record carrier as claimed in claim 1, wherein the first radiation has a first predetermined polarization and the second radiation has a different, second polarization (The optical medium changes the intensity or the polarization state of the light after it is reflected off the optical medium, col 4 lines 25-27).

Regarding claim 5, Sullivan teaches an optical record carrier as claimed in claim 4,

wherein said zone comprises at least one birefringent material, the birefringent material being arranged such that the radiation of the second polarization experiences at least two different refractive indices when traversing the content information layer, whilst the radiation of the first polarization experiences substantially only a single refractive index when traversing the content information layer (the logo coating 14 consists of a single layer of Si, SiO, Fe<sub>2</sub>O<sub>3</sub>, organic dye or ink, etc. The layer has a refractive index  $n$  at the reading and writing laser wavelength  $\lambda_0$  of the optical medium, col 7 lines 47-50).

Regarding claim 6, Sullivan teaches an optical record carrier as claimed in claim 5, wherein the birefringent material is dispersed in a matrix material (The logo coating 14 includes at least one layer of a dielectric, semiconductor or metal material, or, alternatively, of an organic dye or ink, and is deposited through a mask and covers at least part of the working area of the medium and forms a visible logo which can be easily recognized. Alternatively, the logo coating can be coated using one of the above methods on the entire read-side and then be photo-lithographically etched to produce the logo patterns, col 6 lines 10-20).

Regarding claim 7, Sullivan teaches an optical record carrier as claimed in claim 1, wherein said content information layer comprises a dye (The logo coating 14 includes at least one layer of a dielectric, semiconductor or metal material, or, alternatively, of an organic dye or ink, col 6 lines 10-15).

Regarding claim 8, Sullivan teaches an optical record carrier as claimed in claim 4, wherein said dye is birefringent (the logo coating 14 consists of a single layer of Si, SiO, Fe.sub.2 O.sub.3, organic dye or ink, etc. The layer has a refractive index  $n$  at the reading

and writing laser wavelength  $\lambda_0$  of the optical medium, col 7 lines 47-50).

Regarding claim 9, Sullivan teaches an optical record carrier as claimed in claim 1, wherein said zone is at least one of: patterned, and arranged in a predetermined manner to provide visible content information to a user (applying a logo coating to predetermined portions of the second surface or the read-side of the substrate, the said logo coating defining a visible logo being of a predetermined thickness and consisting of predetermined materials and having predetermined reflection, transmission and absorption properties such that the data can be written or read normally regardless of the existence of the said logo coating, col 2 lines 62-67).

Regarding claim 10, Sullivan teaches an optical record carrier as claimed in claim 9, wherein the content information layer has an area and comprises a plurality of substantially equally spaced and substantially opaque colored sub areas (see Table 3).

Regarding claim 11, Sullivan teaches an optical record carrier as claimed in claim 10, wherein said colored sub areas have a size between 75 and 20000  $\mu\text{m}^2$  (The logo coating 14 includes at least one layer of a dielectric, semiconductor or metal material, or, alternatively, of an organic dye or ink, and is deposited through a mask and covers at least part of the working area of the medium and forms a visible logo which can be easily recognized. Alternatively, the logo coating can be coated using one of the above methods on the entire read-side and then be photo-lithographically etched to produce the logo patterns, col 6 lines 10-20).

Regarding claim 12, Sullivan teaches an optical record carrier as claimed in claim 11, wherein said colored subareas occupy a value selected from 10 to 30 % of the total the

content information layer area and are substantially evenly spread over the total the content information layer area (The logo coating 14 includes at least one layer of a dielectric, semiconductor or metal material, or, alternatively, of an organic dye or ink, and is deposited through a mask and covers at least part of the working area of the medium and forms a visible logo which can be easily recognized. Alternatively, the logo coating can be coated using one of the above methods on the entire read-side and then be photo-lithographically etched to produce the logo patterns, col 6 lines 10-20).

Regarding claim 13, Sullivan teaches an optical record carrier as claimed in claim 9, wherein the content information layer comprises a plurality of differently colored sublayers substantially equally transparent for the first radiation (it becomes possible to design logos with a particular color or color contrast at a specific angle, col 8 line 13-15).

Regarding claim 14, Sullivan teaches an optical record carrier as claimed in claim 13, wherein the content information layer has a substantially uniform optical thickness at the first radiation wavelength in order to minimize disturbance of the optical wavefront of the focused radiation beam during reading and writing of information from or onto the user information layer of the optical record carrier at the first radiation wavelength (said visible logo coating being of a predetermined thickness and a predetermined material such that light at a read wavelength reflected by the logo coating is substantially reflected and unchanged by the coating so that the data can be detected, col 3 line 23-29).

Regarding claim 15, Sullivan teaches an optical record carrier as claimed in claim 14, wherein the content information layer further comprises a substantially optically transparent and flat cover layer facing away from the at least one user information layer (An optional

protective coating 16 is deposited over top of the logo 14 and the substrate 10, col 6 lines 19-21).

Regarding claim 16, Sullivan teaches an optical record carrier as claimed in claim 9, wherein the content information layer comprises dielectric layers having antireflective properties at the first radiation wavelength, which dielectric layers represent the visible content information (logo coatings made of transparent all-dielectric materials will be also quite adequate for use in this case, col 8 lines 46-50).

Regarding claim 17, Sullivan teaches an optical record carrier as claimed in claim 1, wherein the record carrier is two-sided, at least one side having a content information layer and each side having a user information layer (the scope of this invention includes double sided optical disks having a recording coating on both sides of the disk, col 13 lines 18-21).

Regarding claim 18, Sullivan teaches an optical record carrier (Fig. 1) comprising at least one content information layer (a medium for storing data) and at least one user information layer (and having a visible logo thereon) arranged to be scanned through the content information layer by first radiation; the content information layer comprising at least one zone representing content information in a surrounding medium, the content layer being transparent for said first radiation and the zone and surrounding medium providing an optical, visual contrast for a different, second radiation, comprising at least one zone wherein said zone combines at least two or more of the arrangements of claim 6 (and, a logo coating for producing the visible logo carried by the read-side of the substrate, the coating having a sufficiently high transmittance at a read or write wavelength such that light at the read or write wavelength passing through the logo coating toward the other side of the substrate and



reflected back through the logo is substantially transmitted and unchanged by the logo coating so that the data can be detected, wherein the logo coating and the reflective coating are visibly contrasting, col 2 lines 44-56).

Regarding claim 19, Sullivan teaches an optical record carrier comprising at least one content information layer (a medium for storing data) and at least one user information layer (and having a visible logo thereon) arranged to be scanned through the content information layer by first radiation; the content information layer comprising a material recordable to a pattern providing at least one zone representing content information in a surrounding medium, the content layer being transparent for said first radiation and the zone and surrounding medium providing an optical contrast for a different, second radiation (and, a logo coating for producing the visible logo carried by the read-side of the substrate, the coating having a sufficiently high transmittance at a read or write wavelength such that light at the read or write wavelength passing through the logo coating toward the other side of the substrate and reflected back through the logo is substantially transmitted and unchanged by the logo coating so that the data can be detected, wherein the logo coating and the reflective coating are visibly contrasting, col 2 lines 44-56).

Regarding claim 20, Sullivan teaches a device for writing content information to a content information layer on an optical record carrier, the optical record carrier comprising: at least one content information layer (a medium for storing data) and at least one user information layer (and having a visible logo thereon) arranged to be scanned through the content information layer by first radiation, the content information layer comprising recordable material; the device being arranged to record said material of the content

information layer so as to provide at least one zone pattern-wise representing the content information, the zone and its surrounding medium providing an optical contrast for a different, second" radiation (and, a logo coating for producing the visible logo carried by the read-side of the substrate, the coating having a sufficiently high transmittance at a read or write wavelength such that light at the read or write wavelength passing through the logo coating toward the other side of the substrate and reflected back through the logo is substantially transmitted and unchanged by the logo coating so that the data can be detected, wherein the logo coating and the reflective coating are visibly contrasting, col 2 lines 44-56).

Regarding claim 21, Sullivan teaches a method of writing content information to an optical record carrier, the optical record carrier comprising: at least one content information layer (a medium for storing data) and at least one user information layer (and having a visible logo thereon) arranged to be scanned through the content information layer by first radiation, the content information layer comprising recordable material; the method comprising the step of recording said material of the content information layer so as to provide at least one zone representing the content information, the zone and its surrounding medium providing an optical contrast for a different, second radiation (and, a logo coating for producing the visible logo carried by the read-side of the substrate, the coating having a sufficiently high transmittance at a read or write wavelength such that light at the read or write wavelength passing through the logo coating toward the other side of the substrate and reflected back through the logo is substantially transmitted and unchanged by the logo coating so that the data can be detected, wherein the logo coating and the reflective coating

are visibly contrasting, col 2 lines 44-56).

Regarding claim 22, Sullivan teaches a method of manufacturing an optical record carrier, the method comprising: providing at least one user information layer arranged to be scanned by first radiation; and providing at least one content information layer comprising or recordable to provide at least one zone representing content information, the zone and its surrounding medium providing an optical contrast for a different, second radiation (and, a logo coating for producing the visible logo carried by the read-side of the substrate, the coating having a sufficiently high transmittance at a read or write wavelength such that light at the read or write wavelength passing through the logo coating toward the other side of the substrate and reflected back through the logo is substantially transmitted and unchanged by the logo coating so that the data can be detected, wherein the logo coating and the reflective coating are visibly contrasting, col 2 lines 44-56).

### **Contact**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENOK G. HEYI whose telephone number is (571)270-1816. The examiner can normally be reached on Monday to Friday 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TAN Xuan DINH/  
Primary Examiner, Art Unit 2627  
September 23, 2008

/Henok G Heyi/  
Examiner, Art Unit 2627